AMENDMENTS TO THE CLAIMS:

1.(currently amended): A home agent connected to a first network and providing

mobility transparent communications to a mobile node temporarily connected to a second

network as a mobile destination different from [[a]] said first network which is normally utilized,

said home agent comprising:

a module receiving a new registration request from said mobile node via said second

network;

a module detecting, when receiving the new registration request, that lease addresses of

a DHCP server and addresses pooled beforehand are all occupied, wherein said DHCP server is

connected said home agent via said first network and is an address lender; [[and]]

a module searching for, when detecting that all the addresses are occupied, an address

on the basis of self-managed information and allocating the searched address to said mobile

node; and

a module temporarily pooling as the self-managed information the address requested to

be opened by said mobile node without immediately returning the address to said DHCP server.

2.(cancelled)

3.(currently amended): A home agent according to elaim 2 claim 1, further comprising a

module allocating the temporarily pooled address to said mobile node making the new

registration request.

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4.(currently amended): A home agent according to claim 1, further comprising a module extracting as the self-managed information an address just before time-out of a life time and allocating this extracted address to said mobile node making the new registration request.

5.(original): A home agent according to claim 4, wherein the address just before the time-out of the life time is extracted from a mobile binding list.

6.(currently amended): A home agent according to claim 1, further comprising a module administering as the self-managed information address allocation priorities of users corresponding to said mobile nodes.

7.(original): A home agent according to claim 6, further comprising a module, when the new registration request is given from said mobile node used by a higher priority user, extracting a lower priority user, stopping providing a mobile service to the extracted user, and allocating an address used by the extracted user to said mobile node making the new registration request.

8.(original): A home agent according to claim 6, further comprising a module extracting, when the new registration request is given from said mobile node used by a higher priority user, all lower priority users, and stopping providing mobile services to all the lower priority users extracted.

9.(original): A home agent according to claim 7, further comprising a module temporarily pooling the address used by the user stopped from receiving the mobile service

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without immediately returning the same address to said DHCP server.

10.(currently amended):   An address allocation management method in a home agent connected to a first network and providing mobility transparent communications to a mobile node temporarily connected to a second network as a mobile destination different from [[a]] said first network normally which is utilized, said method comprising:

receiving a new registration request from said mobile node via said second network;

detecting, when receiving the new registration request, that lease addresses of a DHCP server and addresses pooled beforehand are all occupied, wherein said DHCP server is connected said home agent via said first network and is an address lender; [[and]]

searching for, when detecting that all the addresses are occupied, an address on the basis of self-managed information and allocating the searched address to said mobile node; and

temporarily pooling as the self-managed information the address requested to be opened by said mobile node without immediately returning the address to said DHCP server.

11.(cancelled).

12.(currently amended):   An address allocation management method according to ~~claim 11~~ claim 10, further comprising allocating the temporarily pooled address to said mobile node making the new registration request.

13.(currently amended):   An address allocation management method according to claim 10, further comprising extracting as the self-managed information an address just before time-out

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of a life time and allocating this extracted address to said mobile node making the new registration request.

14.(original): An address allocation management method according to claim 13, wherein the address just before the time-out of the life time is extracted from a mobile binding list.

15.(currently amended): An address allocation management method according to claim 10, further comprising administering as the self-managed information address allocation priorities of users corresponding to said mobile nodes.

16.(original): An address allocation management method according to claim 15, further comprising, when the new registration request is given from said mobile node used by a higher priority user, extracting a lower priority user, stopping providing a mobile service to the extracted user, and allocating an address used by the extracted user to said mobile node making the new registration request.

17.(original): An address allocation management method according to claim 15, further comprising extracting, when the new registration request is given from said mobile node used by a higher priority user, all lower priority users, and stopping providing mobile services to all the lower priority users extracted.

18.(original): An address allocation management method according to claim 16, further

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comprising temporarily pooling the address used by the user stopped from receiving the mobile

service without immediately returning the same address to said DHCP server.

19.(new):   A home agent for transferring a packet for mobile-IP, comprising:

a first module receiving a registration request from a mobile node via a mobile-IP

network;

a second module allocating an IP address to said mobile node, said IP address

being selected from one of a DHCP server, a first pool storing IP addresses, and a second pool

storing IP addresses; and

a third module storing an IP address released from the mobile node in the second

pool for a predetermined period of time.

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